READINGS in ORIENTATION and MOBILITY

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INTRODUCTION

This information is directed to an audience of varying skill levels and fields of endeavor who provide or support orientation and mobility instruction for severely and profoundly handicapped children and youth with visual impairment ages 0-21. Within this age range are many functional levels to which orientation and mobility methods and materials can be adapted.

Certain readings are directed to the orientation and mobility specialist who wishes to develop or augment services to this population. The five-part program may overlap with services the child is receiving elsewhere—such as in the classroom. For this reason, the orientation and mobility specialist should examine the curriculum with the child's teachers to determine the extent to which the mobility program elements are being provided.

For example, the emphasis in a particular school program may be on self-help and/or social/vocational skills, with insufficient time available for such mobility prerequisites as body and sensory training, not to mention mobility training itself. In such cases the specialist can supply the needed elements. The following information consists of subject matter and teaching techniques developed from the author's experience in teaching orientation and mobility to severely and profoundly handicapped, visually impaired children and youth, the efficacy of which has already been validated in various studies.

One overriding idea has emerged from this experience: Much more should have been done earlier in the child's life. Perhaps this information will ameliorate that condition and help our children realize their highest level of orientation and mobility achievement.

RATIONALE for ORIENTATION & MOBILITY INSTRUCTION

Movement enables us to go from place to place and do the things we have learned, to get to the things and places where learning occurs, and to be influenced by that experience.

BASIC PROGRAM OBJECTIVES

There are some general objectives that will serve as the foundation for the individual program of most of the children we will be working with. Among these objectives are the following:

1. **To function with another human being in a travel or caregiving relationship, such as in the sighted guide technique or in following directions.** These basic skills will be useful to the child in any educational or residential setting.
2. **To function in the present school and home environments.** To do this involves environmental manipulation and organized strategies for learning which will be outlined later. Useful routes which will be needed and repeated daily are emphasized here, such as learning the routes to the dining room, bathroom, coat rack, and classroom door.
3. **To design an individualized orientation and mobility program with identifiable objectives incorporating the following basic elements of mobility:**
   a. *Gross motor activities*
   b. *Sensory activities, including the use of residual vision*
   c. *Conceptual activities, including the concept of self-body image*
   d. *Basic sighted guide and independent mobility skills*
4. **To train those persons in the child's life—the teacher, the aide, the parents, the bus driver, and any other significant person in the child's life—in the basic mobility skills** such as sighted guide, narrow spaces, seating, doorways, stairs, and so forth. This will provide needed reinforcement of skills that are being taught at school.

BASIC GUIDELINES of ORIENTATION & MOBILITY INSTRUCTION FOR SEVERELY & PROFOUNDLY HANDICAPPED, VISUALLY-IMPAIRED CHILDREN

In mobility, we are generally concerned with gross motor abilities. That means the large muscles of the body that control limb and body movement. However, muscle control and skill are only means to some important ends:

1. **Reducing dependent behaviors.** With multiply handicapped (MH) children it is often more functional to talk in terms of reducing dependent behaviors rather than the achievement of a degree of total independence. Many of these children will require a special environment for their entire lives. The more that dependence is decreased, even in small increments, the more increasingly complex objectives can be initiated. Thus, dependence in taking the student all the way to the dining room, all the way to the bathroom, and all the way to his/her desk should be gradually reduced.
2. **Helping the child to appear and act as normally as possible.** We are judged by our appearance and actions. To ensure that these children will have opportunities for moving into group homes, sheltered employment, and advanced programs, we must be cognizant of their appearance and actions.

3. **Mastering movement skills concerned with self-care.** Eating, toileting, dressing—these, too, are skills that help determine placement of a child. They can make the difference between a child's moving upward through our various programs toward a fulfilling life, or spending precious years learning these skills at a lower level. Can the boy who is wheelchair-bound dress and toilet himself completely independently? Can he maneuver the wheelchair in the bathroom? Can he find the sink in the bathroom? Can he lift his legs to pull on his trousers? Many of these objectives may overlap with the mobility specialist, teacher, and physical therapist.

4. **Developing social behaviors.** It has been observed that children seem to interact meaningfully with their environment to the extent that they interact meaningfully with people. Therefore, fostering interaction with other children as well as with the teacher will have concomitant rewards when the child deals with his/her environment.

5. **Developing a greater awareness of self.** Through prescribed body images, exercises, and selected physical activities, the child must have awareness and use his/her body for efficient locomotion to take place.

6. **Developing a greater awareness of the environment.** Know the names and concepts of common environmental objects (chair, table, door, lamp, floor, wall, spoon, etc.) and necessary environmental actions (push, pull, turn, open, close, etc.).

7. **Developing ability to follow directions.** Reduce dependent needs and necessity for direct care personnel.

8. **Increasing the range and variety of experiences available to the child.** Through field trips and selected activities, the child will build a repertoire of exposure to valuable experiences and stimulations.

THE ROLE OF THE ORIENTATION & MOBILITY SPECIALIST IN WORK WITH SEVERELY & PROFOUNDLY HANDICAPPED, VISUALLY-IMPAIRED CHILDREN

The mobility specialist should have had experience working with the multihandicapped and their teachers as well as some expertise in conducting in-service training for paraprofessionals and professionals involved with this population. It is also helpful to have a familiarity with vocational and prevocational training in order to facilitate the instruction of higher functioning students.

Basically, the mobility specialist's role is one of consultant and trainer. This results in the maximum effectiveness to the maximum number of children. Typical activities include the following:

1. **Scheduled weekly visit to classrooms to discuss problems and progress with the teacher.** A good way to do this is to have 4'' x 6'' mobility cards, one for each student, with his/her objective on the card. The teacher jots down problems, questions, observations, etc. for discussion during the mobility specialist's next visit.

2. **Conferences with teachers and parents at the beginning of the school year** to establish individualized mobility objectives and methods for each child. Evaluation of individual children may be a part of these conferences.

3. **Providing resource material such as lists of mobility related activities and games, sources for teaching aids programmed materials, community resources, and other information** as it becomes available to teachers and other personnel.

4. **Direct training with children and young adults, such as cane users and those entering special phases of training** (a group home, workshop, new school, or any new environment). Training the child in these circumstances can often be used to model proper techniques for the new supervisor, house parents, teacher or aide, thereby facilitating their own training.

5. **Assembling training guidelines and packets, audio-visual materials, training aids, exercises, and demonstrations for use in workshops** for the training of teachers, aides, houseparents, direct care personnel, volunteers, students, and others.

6. **Articulating with other disciplines serving the child—** occupational therapy, physical education—by identifying goals that can be mutually reinforced.

7. **Taking part in parent and parent-training meetings** to acquaint them with mobility instruction, the development of mobility, and the proper skills for mobility with their child.

8. **Teaching basic skills to new staff members,** aides, and any other new person who will be working with the children.

THE INFLUENCE of VARIOUS DISABILITIES ON ORIENTATION & MOBILITY

Other disabilities in addition to blindness provide complications and challenges of varying degrees.

MENTAL RETARDATION

MR is the most common additional disability and the most far-reaching in its impact on the person. As compared to a normal blind person, mobility training may take from 3 to 10 times as long. Teaching goals and techniques have been outlined in this packet to assist the teacher or mobility practitioner develop the mobility of blind persons who are retarded.

CEREBRAL PALSY

This condition ranges in severity from mild, where mobility is hardly affected, to more involved cases where

mobility is difficult. Certain problems have been noted in environmental movement:

1. *Control of balance*—PT exercises, P.E. activities, motor programs, and practice on stairs have been used to help students develop their sense of balance. Daily practice on stairs should be mandatory.

2. *Posture*—referral to PT, reinforcement by teacher and mobility instructor of proper posture. A therapeutic effect has been noted in the sighted guide technique.

3. *Manipulation of environmental objects*—doorknobs, doors, latches, handles, grasp on stairway handrail, etc. Daily practice in the successful management of hazards such as stairsteps, doors, changes of texture under foot, and the completion of common tasks such as carrying a lunchroom tray or stack of towels is very beneficial. Walking on various surfaces, such as tile, carpet, sidewalk, grass, sand, pebbles, small rocks, and uneven terrain can enhance the child's sense of balance and self-confidence when he/she encounters these surfaces again. Walking up and down inclines of increasing difficulty also improves body coordination, balance, and body tone.

HEMIPLEGIA

This is a partial or complete paralysis of one side of the body, including the arm and leg. The person may or may not be able to walk safely. Long cane use is not precluded. Modifications of doorway and stair technique are necessary when traveling with a sighted guide or using cane.

1. *Sighted guide may choose one of a set of doors to move through so that little or no assistance will be necessary from the student.* For example, near the front of buildings there are usually several sets of doors. It is usually easier to choose a door that is on the opposite side of the guide from the student. Thus, with a student on the right side, the guide would choose a door opening toward or away on the left. With a slight rotation of his/her body both the guide and student can easily pass through the door. If the student has some use of the involved side, the guide can reinforce "right" or "left" as the case may be and encourage the student to help with the door to the extent possible. On stairways, the student may use a non-alternating pattern and need the support of the handrail and/or the guide's arms. Traveling independently through a door with a cane, the student will have to open the door with the cane hand while not allowing the tip to contact the floor and consequently bunching up carpet or wedging the door. On stairs the cane hand must also hold the handrail if additional support is necessary.

PARAPLEGIA

Such persons are often in wheelchairs or on crutches. Mobility for wheelchair-bound, blind persons may be enhanced by the following:

1. *Building shallow ramps* at stairs, curbs, and other changes in elevation, indoors or out.

2. *Wearing gloves or modifying wheelchair with guards* to protect knuckles when going through doorways or along wall.

3. *Rearranging furniture* to allow easy passage of wheelchair.

4. *Obtaining a commercially produced axle that locks and unlocks both wheels* for powering the chair with one hand, freeing one hand for trailing walls.

5. *Making the chair narrower for passage of doorways* by pushing the sides together and hold by strength or locking sides together with a commercially made device, a coat hanger, or home-made holding bar. Younger children may use a crawligator or a scooter board mounted on caster wheels for periods of the day to enhance mobility.

QUADRAPLEGIA

This is a condition in which all the limbs suffer partial or complete paralysis. Independent mobility for such persons is almost completely restricted. They can, however, be mobile with the help of another person to push their wheelchair or bed. Sophisticated wheelchairs are available which are directed and powered by the action of the tongue or other movement of which the person is capable.

ORTHOPEDIC PROBLEMS

Effective management of these conditions, as with the above conditions, depends on good medical diagnosis as to the cause, prognosis, and other treatment of the conditions. Certain activities may be ruled out and others suggested. The mobility trainer then has an idea of the cause, extent, and potential function of the person with this particular disability. Lessons can then be structured to emphasize the therapeutic activities prescribed by medical and therapeutic personnel. Help on orthopedic problems should come as early in life as possible. In later life surgery may be ruled out and remediation through therapy, must be of sufficient duration and consistency to be effective.

NON-VERBALISM

This condition is often associated with retardation. These persons cannot or do not talk, or say very little. A means of communication must be established. Hand signs may be taught to indicate mobility needs: eat, bathroom, go, stop, turn around, etc. The child may have a good receptive vocabulary, meaning he/she can understand words spoken to him/her. Therefore, mobility lessons will consist of the child demonstrating by action his/her understanding of the directions he/she was given.

EPILEPSY

Epileptics should not be placed in situations where a seizure could cause them great bodily harm, such as climbing to heights or swinging high. Problems with attention span and balance may be noted as a result of medication or changes in medication. Communication with medical personnel will provide needed feedback to stabilize the student at the highest level of functioning.

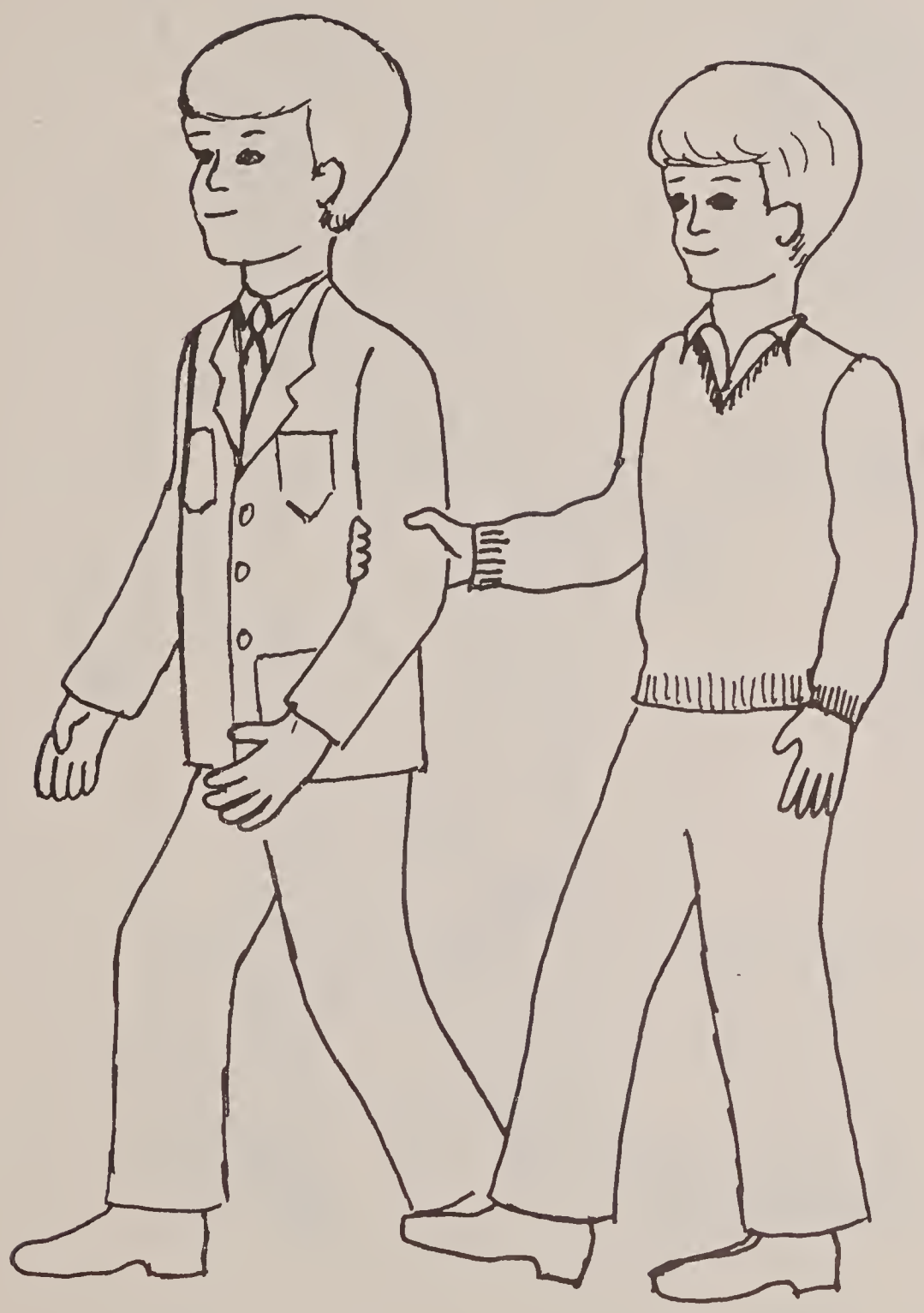
BEHAVIOR DISORDERS

Behavior problems are handled no differently on mobility lessons than in the classroom with the exception that the child may need to be restrained in some situations because of danger to self or others. Behavior outbursts tend to blunt the effectiveness of the mobility lesson. The lesson should be stopped and the outburst handled promptly, firmly and consistently.

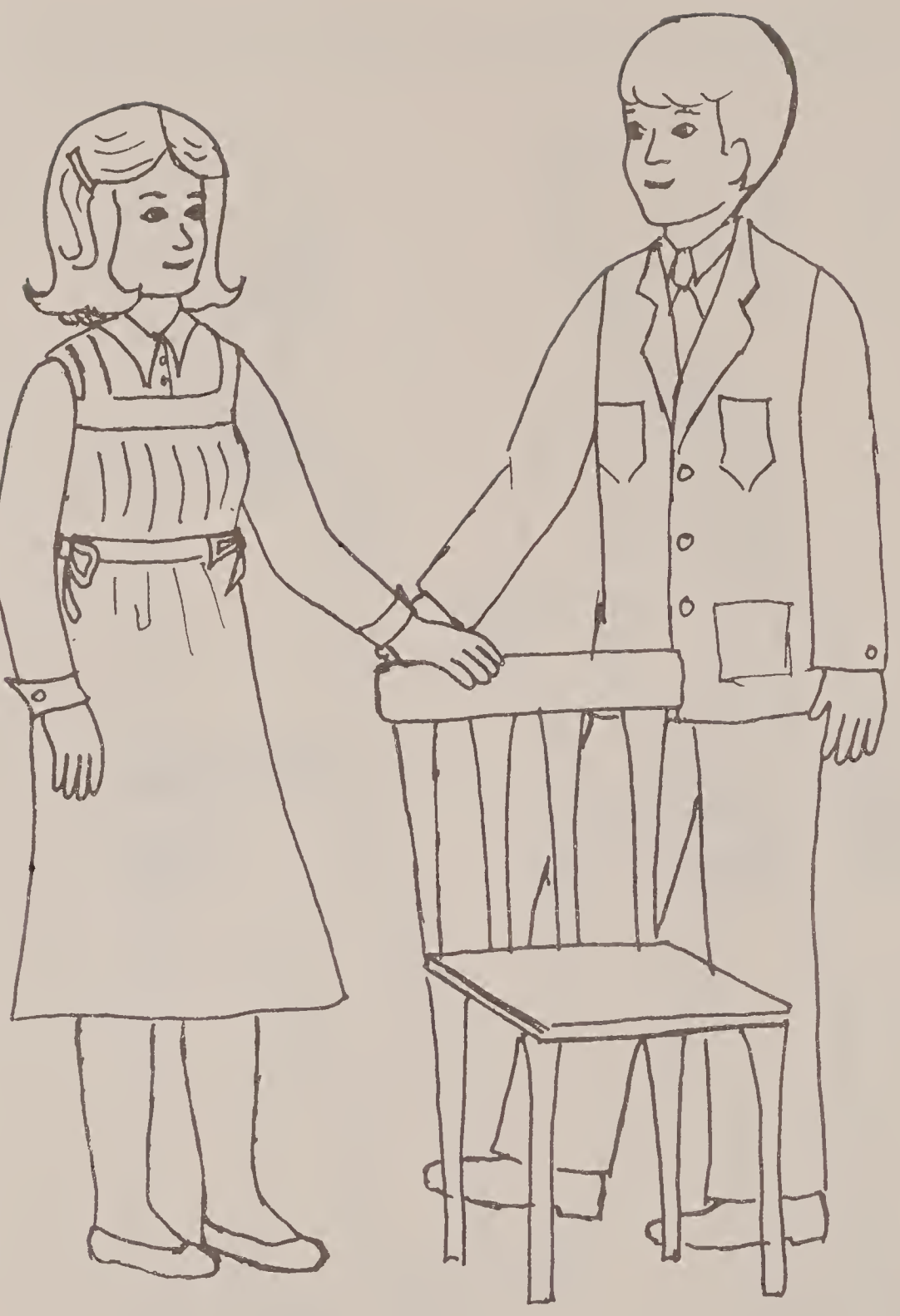
HEARING IMPAIRMENT

An evaluation by a specialist should reveal whether there is usable remaining hearing and the possible benefits of amplification. Again, the establishment of a communication system is necessary. Speaking directly and forcefully into the ear has been found helpful as has signing and printing letters in the hand. It may be necessary to move the child physically through the desired movement to communicate this to him/her.

ILLUSTRATED ORIENTATION & MOBILITY TECHNIQUES



THE SIGHTED GUIDE TECHNIQUE

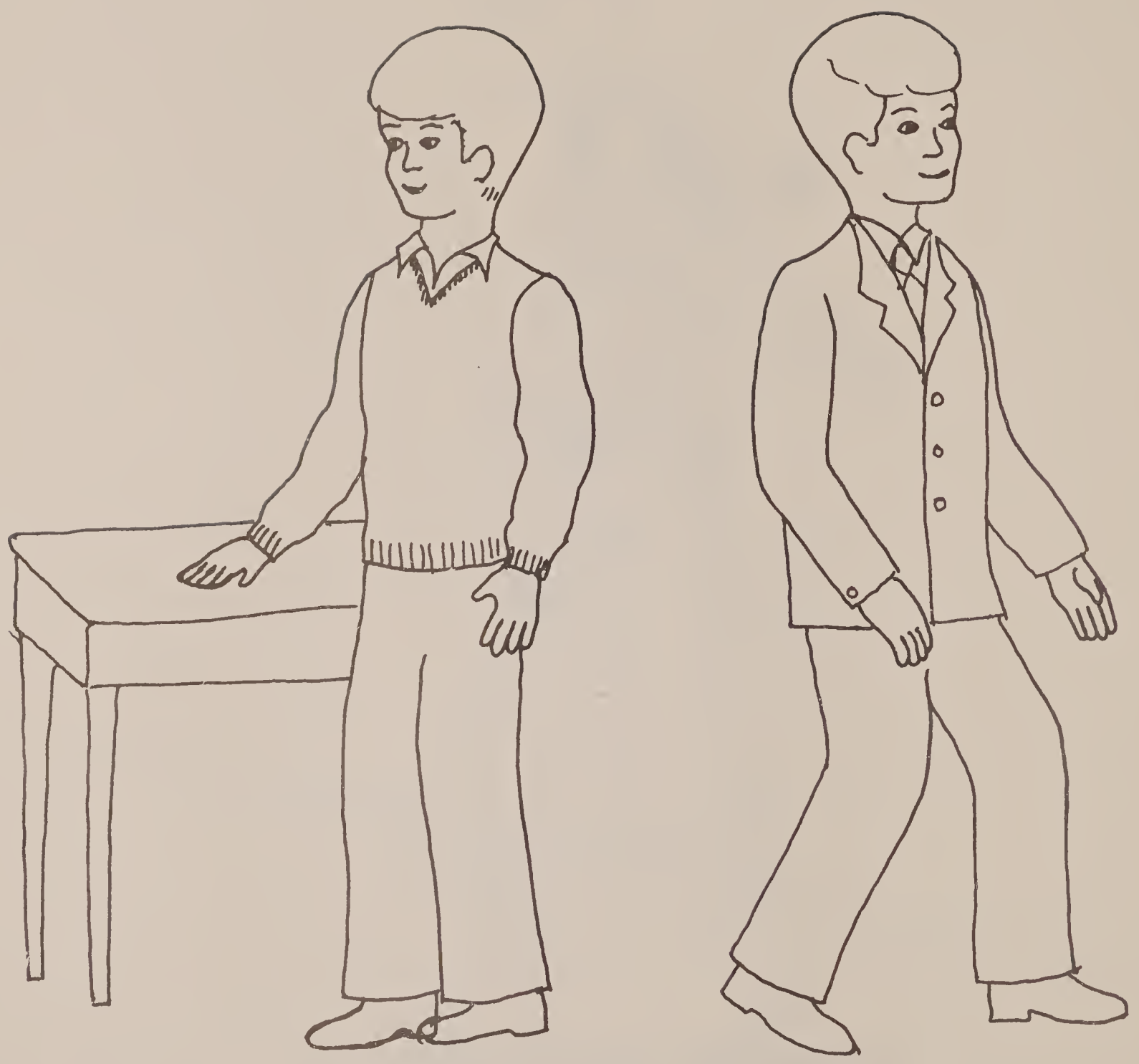


SEATING A BLIND PERSON

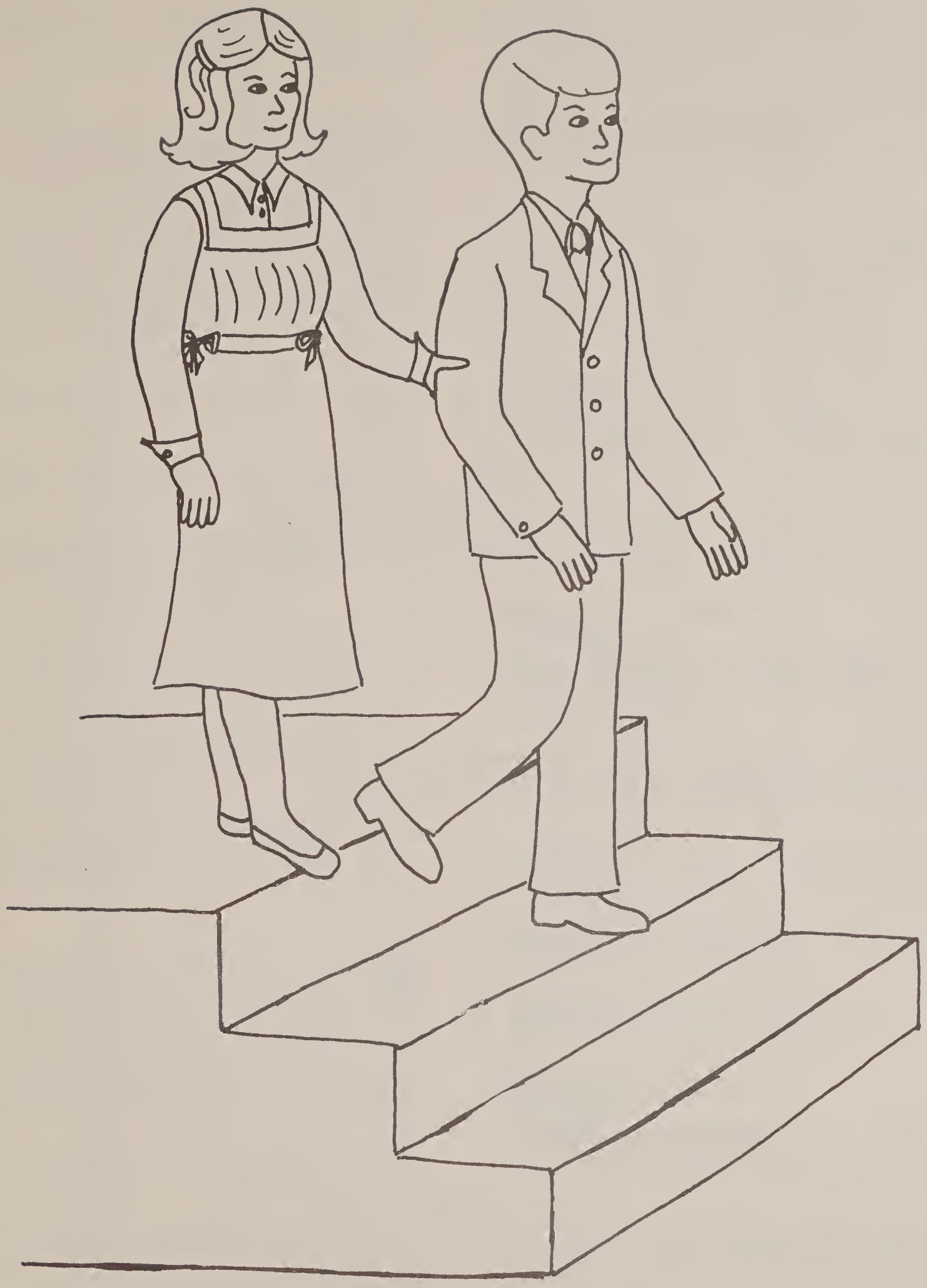
THE TRAILING TECHNIQUE

THE TRAILING TECHNIQUE USED WITH THE
UPPER HAND AND FOREARM TECHNIQUE

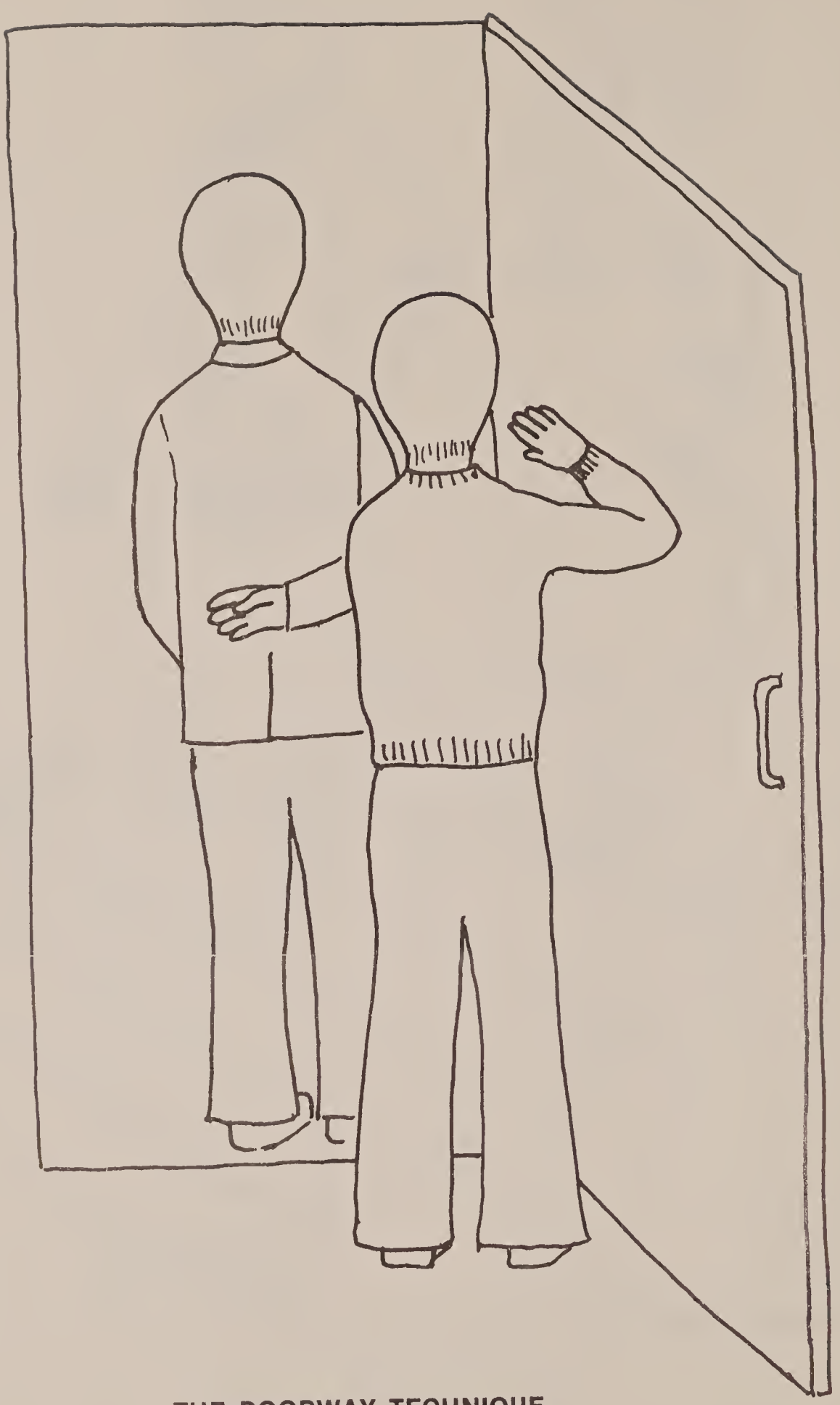
THE LOWER HAND AND FOREARM TECHNIQUE



LEAVING A BLIND PERSON



THE STAIRWAY TECHNIQUE



THE DOORWAY TECHNIQUE

DESIGNING THE FIVE-PART ORIENTATION & MOBILITY PROGRAM

1. GROSS MOTOR

Because mobility is concerned with movement of the entire body, it is only natural that there is deep interest in all gross motor activities. The development of the child's ability to move his/her body efficiently will pay dividends in mobility training. For low functioning blind children, gross motor activities become even more useful as a tool to develop and enhance mobility. Medical consultation should be sought in designing the program for each child since activities may be contraindicated.

In outlining the gross motor part of the child's program, the teacher may wish to develop the following points:

1. *Describe exercises, active or passive, the child should do and why.*
2. *Describe the need for and method of remediation for running, jumping, walking, and fast walking.*
3. *Describe activities to be done to rhythm.*
4. *Describe amount and type of daily stairway travel.*
5. *Describe preference child may have for certain activities.*
6. *Physical therapy and tnerapeutic exercises may be included here. Describe.*
7. *Describe any other activities of which the child is capable, such as crawling, that may be used to develop antecedent mobility skills.*

2. SENSORY

Since so much information about the world comes to us through the sense of vision, there is a severe impoverishment of learning experiences for the child who is blind or suffers a visual impairment. Information received from the remaining senses, therefore, must do double duty, so to speak, and developing the child's use of the remaining senses, particularly hearing and touch, is of prime importance

Examples of the types of activities that might be included here are the following:

1. *Auditory awareness and localization skills* by pointing at and grasping at sounds such as bells, noisemaking toys, etc. Also facing sounds, walking toward sounds, and discriminating two or more sounds. Guide the child or his/her hand to the object if necessary.

2. *Lavish tactual experiences with hands and feet,* such as various textures, and the identification of objects by shape are valuable to the child particularly as they arise from trips and short forays around the school. Seize opportunities for the child to have sensory experiences in every school activity.

3. *The use of the senses of smell and taste* are often very pleasurable for the child and may be taught at snack and meal times. Again, the whole world and the real things in it should be the classroom. For example, use real fruit to smell, touch, identify, and finally slice up and taste. Talk about the smell of food when nearing the lunchroom and before eating.

3. CONCEPTUAL

Concepts are the building blocks of mobility. It is this knowledge about the parts of ourselves and the things and ideas in the world that allows us to function in it.

Concepts fall generally under these headings:

1. *Self—Body Parts:* head, arm, hand, mouth, hair, eyes, ears, nose, stomach, leg, foot, etc.

   Body Directions (directions in which the entire body is capable of moving): right, left, front, back, up, down, side.

   Body Movement: jump, crawl, roll, bend, squat, turn, hop, stoop, run, climb, scoot (forward, backward), slide.

   Body Positions: laying, standing, crouching, sitting, leaning.

   Position of Objects in Relation to Body: front, rear, behind, above, beside, below, left, right, against, overhead, next to, near, far.

   Position of Objects in Relation to Body or Each Other: on, under, in, outside, opposite, beneath, beside, near, next to, high, low, across, parallel.

2. *Nominative*—the names of objects and ideas such as table, chair, clock, ball, couch, faucet, and intangibles such as push, pull, etc.

3. *Quantitative*—the measurement of ideas such as yard, mile, pound, block, day, year, etc.

4. *Qualitative*—the qualities of objects, such as hot, cold, soft, hard, round, square, straight, etc.

5. *Directional*—north, south, east, west, up, down, forward, backward, right, left, etc.

6. *Comparative and Superlative*—used when comparing things, such as longer, taller, bigger, heavier, wider, longest, tallest, biggest, heaviest, widest, etc.

There is some overlapping among these categories, but the examples given do illustrate the extent to which concepts are necessary to our everyday functioning.

Attention should also be paid to the process of sequencing as a concept. In going from one place to another, we pass through or by a series of objects and places. We usually must know this beforehand to get where we are going. To return to the starting point, that sequence is reversed or an entirely new one initiated if a different route is chosen. Therefore, efficient travel involves not only recognizing objects and places, but also recalling the sequence of their placement.

One needs to know as much as possible to be able to generalize across concepts. For example, we all have an idea or picture of what a chair should be because we have seen so many different kinds. But a blind child, having experienced only a few, may not be able to understand that all these are basically chairs:

1. desk chair (small and large)
2. dining room chair
3. rocking chair
4. arm chair
5. lawn chair
6. dentist's chair
7. barber chair
8. doll house chair
9. swivel chair
10. beanbag chair

It is easy to see that once the child has the idea of "chairness" in mind, it is much easier for him/her to identify and use all the kinds of chairs around him/her.

For efficient mobility, one of the most important concepts a child must learn in the beginning is the concept of self-body image. This includes knowing his/her body parts and their relationships.

4. SIGHTED GUIDE MOBILITY

Wherever the child goes, he/she will have to function with sighted persons, and to begin training him/her now in the proper methods will accomplish the following:

1. Be safer than any technique he/she is now using.
2. Improve his/her appearance.
3. Start him/her on the road to more independence.
4. Provide him/her with a consistent method for relating to sighted people.
5. Minimize the amount of assistance required in moving from place to place.

The basic skills we are concerned with are as follows:

1. The sighted guide
2. Narrow space
3. Doorways
4. Seating
5. Stairways
6. Leaving a blind person in contact with the environment
7. Examining objects

5. INDEPENDENT MOBILITY

The child should be observed to determine the extent and nature of existing independent movement in each of his/her environments (home, school, workshop, residence, ward). The teacher, former teacher, parents, and others should be questioned regarding the child's desire, opportunity, frequency, duration, and habits of independent movement. Care should be taken to determine if there is remaining vision since this is sometimes difficult to diagnose. The child's interaction with people, toys, puzzles, and objects, as well as the extent of exploratory behaviors, should all be weighted in the assessment of his/her present mobility and potential mobility. The condition and musculature of the child's hands are often an indication of his/her exploration and manipulative skills. An assessment form will be found appended.

The teacher and mobility trainer should identify for each child a simple, short, highly motivating, independent classroom mobility lesson that would be useful in another environment. Going to the restroom, play area, or snack table, for example, would be good initial routes to learn. The child may be at one of many stations along a mobility continuum:

MOVEMENT

16. Capable of walking
15. Capable of walking with assistance
14. Capable of standing without assistance
13. Capable of standing with assistance
12. Capable of crawling without assistance
11. Capable of crawling with assistance
10. Capable of maintaining sitting posture
9. Capable of attaining sitting posture
8. Capable of sitting with assistance
7. Capable of bridging front and rear
6. Capable of bridging front or rear
5. Capable of rolling movement
4. Capable of head limb and torso movement
3. Capable of head and limb movement
2. Capable of head or limb movement
1. Completely immobile—capable of no movement

ORIENTATION
(to self and world)

16. Cruises furniture; increased balance, proprioception, kinesthesis.
15. Regards and explores objects from new perspective.
14. Greatly improved body coordination, balance, and strength.
13. Manipulates toys, doors, handles, drawers.
12. Exploration, orientation. Establishes relationship to surroundings in various areas he/she is taken, kitchen, yard, living room. Explores.
11. Explores, manipulates new places, objects.
10. Body well coordinated. Limb movements purposeful. Less concern with self and more with world. Concerted exploration, manipulation, interaction with mother, adults, sensory stimuli. Exploration of play area.
9. Aware of and plays with toys, objects. Aware of varying sounds around him/her.
8. Explores surroundings.
7. Hand/foot regard and play, other body parts.
6. Increased proprioception, kinesthesis
5. Coordinates body movements. Proprioception and kinesthesis being developed and used.
4. Aware of and experimenting with body movements.
3. Aware of body movements. Enjoys mother.
2. Reacts to mother's voice, presence, touch.
1. Minimal reaction.

DEVELOPING MOBILITY IN & OUT OF THE CLASSROOM

IN THE CLASSROOM

To help children develop mobility, teachers will not only want to include specific mobility-related items in their curriculum, but also use every incidental learning experience that occurs. This will reinforce earlier skills and increase the child's independence. The classroom is the natural setting in which to begin mobility training. The child will often spend much of the day here and his/her ability to function in that environment is important. In general, the teacher will want to give less and less assistance to the child as he/she learns to go from one place to another in the room. High motivation areas such as the restroom, snack table, or certain places in the room where activities he/she likes occur are ideal beginning points. The child should have a regular customary place in the room, or each area of the room, but have plenty of opportunities to move around. The degrees of independent mobility in, for example, going from the ADL (Activities for Daily Living) Table to the table in the language area of the room are as follows:

METHOD	%Teacher Assistance
1. Teacher takes child using sighted guide technique to table	100%
2. Teacher leads child with voice	90%
3. Teacher calls to child from language table while tapping table	70%
4. Teacher calls several times and taps table continuously	60%
5. Teacher calls once and taps table continuously	50%
6. Teacher calls once and taps table intermittently	40%
7. Teacher calls once, then taps once	30%
8. Teacher tells child to go to table, then walks over and taps table several times	20%
9. Teacher tells child to go to table, then walks over and taps table once	10%
10. Teacher tells child to go to table and may or may not give child a gentle push in proper direction	5% to 0%

This, of course, is a rote model which teaches the child by repetition and decreasing levels of assistance. Proper mobility techniques may be used with this system. For example, the trailing technique might be used if the tables are against a wall. It is, in fact, better to have the child learn initial classroom mobility by trailing walls for short distances than by walking across open spaces, because his/her travel is guided. Many repetitions at each of the above levels will be necessary before proceeding on to the next level. It will also prove useful to employ a sound source associated with the objective instead of tapping. For example, a faucet may be turned on to aid the student in learning the route to the bathroom.

It is better to concentrate on a few essential routes in the beginning rather than trying to learn all the classroom routes at once. Hence, the child will be at advanced levels on some routes and at more basic levels on others.

The class schedule should be arranged so that class activities are carried on in different areas of the room necessitating movement from one work station to another as work is completed. The schedule may be arranged so that less able students travel to adjacent areas along a wall while better oriented students travel to work areas across open spaces. Another option is to begin all students at the basic level of traveling to adjacent areas at the beginning of the school year and through schedule changes or rearranging areas require travel across longer distances and through open spaces.

It is well for the teacher to decide on one name for things in her room and, at least in the beginning, stick to that name. Avoid names that sound alike. For example, naming doors, rooms or tables, A, B, C, D, and E sounds good, but B, C, D, and E all rhyme and make the distinction more difficult for some children. It is also very valuable to be sure the child knows the names of objects in his/her environment that he/she can touch—wall, floor, carpet, tile, sink, door, table, desk, light switch, doorknob, window, etc. Be sure to include the names of items used in eating. Later, include items found in an ordinary living arrangement: couch, lamp, refrigerator, wall outlet, cabinet, etc. As the child develops familiarities with these names introduce additional names for these same items: sofa, rug, frigidaire, etc.

Independence can be fostered by teaching the child to open and close doors with various types of latching devices —conventional doorknobs, crash bars, the various types of latches on restroom doors, self-closing doors with various types of handles (both vertical and horizontal; please note that generally horizontal handles push away and vertical handles pull toward.) Use heavy and light doors.

The child must be able to know common objects in his /her environment and perform common environmental manipulations and movements for his/her mobility to occur and to be purposeful.

To develop purposeful movement and decrease dependence, a list of common directions is appended. The child should be able to follow the directions with the appropriate action. Learning to follow these simple directions will also have paved the way for following directions on mobility lessons. (See "Following Directions Checklist.")

OUT OF THE CLASSROOM

There are opportunities for mobility out of the classroom when it is necessary to move several students or the whole class to another area of the school. The teacher can

select a child to lead the others to the objective—the gym, clinic, or play area. Other students can be put on the buddy system—the more able helping the less able. Benefits include practice with the sighted guide technique, following a leader, and orientation information for the leader. A different leader can be selected each time, giving more children the fun and responsibility of being leader. A great amount of time will be saved if the teacher will always have the child repeat directions, if possible.

A problem for mobility instructors and teachers is helping the child who travels independently outside the classroom find a use for his/her skills. The child may:

1. Carry absentee and lunch reports to the office or lunchroom.
2. Lead other students to necessary destinations, such as the clinic or a special class.
3. Conduct tours for visitors of the class or school.
4. Take messages to teachers, nurse, physical therapist, office, etc.
5. Check teacher's mailbox.
6. Purchase soft drinks and snack items from machines for teachers, self, or others.
7. Obtain and return items needed for a purpose. Examples: spoon from cafeteria, book from library, paints from art department, etc.
8. Collect reports from several teachers and deliver to a location.
9. Take a message or item to several teachers or places.

ENVIRONMENTAL CONSIDERATIONS

The best environment is one's own home or a homelike environment. Our learning arrangements should attempt to replicate this environment, but they seldom do. Older schools of the egg crate design have little in them to remind one of home, but in one respect they are better than newer schools—their architecture and furniture are conventional and consistent. Modern schools may have odd shaped rooms, rooms that change shape with sliding partitions, wide doorways (or wide classroom doorways) with no doors, and they may be noisy. Sound characteristics can change with moving partitions. This, combined with trapezoidal tables and unusual hallway intersections, contributes to making a modern school a complete nightmare of mobility for the blind.

Institutions may suffer the additional problems of a sterile environment and regimented activities.

Group homes are perhaps the second choice as the best place to live. Here we have a homelike environment, but it can take on an institutional atmosphere if too many children live there, or if the adults fail to create a family-type atmosphere.

People are the most interesting part of the environment. Yet there are children who behave the same around other children as they do alone. They may play in a mechanical way with objects, but as for as awareness of and use of the world around them, there is the same sort of interaction as with people. It seems that to the extent they interact meaningfully with people, they will interact meaningfully with their environment. Therefore, their developing skills may be an index to their mobility potential.

The first significant part of the environment the infant or child must relate to is its mother, that first nurturing person. It is from a secure relationship with the mother that an infant reaches out to the rest of the world. That relationship must be secure with much time spent in touching and talking to the child. Put very succinctly, a mother is the springboard to the universe.

Another important factor in the early environment of children is providing for sensory stimulation. Exercises should be designed that stimulate and provide a broad range of sensations to each of the senses. This information can be emphasized during other school activities also. These opportunities should be seized at the moment they occur.

The severely and profoundly retarded who are severely limited in mobility can benefit from the sort of program outlined in the "SPRITES" section in the appendix. It is important to dwell on head control. Children who do not have head control need to spend much time lying face down during periods of mat work. This encourages head raising, propping, bridging, and other potentially useful activities. Wedges are useful to develop head control. Work for control and full articulation of the head, as mobility begins with head control. At other times, the child should be positioned properly whether in a chair or on a mat. It is very difficult for bones and joints to grow properly to support walking if much of the child's time is spent folded up on the floor or in awkward positions.

Children who are more mobile and function on a somewhat higher level can benefit from a more conventional approach. Given a good teacher-student ratio, a variety of going and doing activities can be provided, many in conjunction with daily class times. (See "Opportunities for Mobility.")

Certain environmental manipulations and adaptations have been found useful:

A. IN THE CLASSROOM:

1. **Place the child's desk near the door and close to a wall** so that he/she can trail the shortest distance possible to the restroom, lavatory, coat rack, or other areas in the room that he/she needs to go to frequently.
2. **For children who are traveling outside the classroom, it may help to place a tactual collage on the outside of the door** to distinguish it from others. For example, macaroni, beans, cardboard designs and other items may be glued to poster board forming a pleasing design and affixed to the door. Each door should be quite different from others.

3. **The presence of a constant, low level sound source as a reference can aid orientation.** We are using an electric metronome. A loud clock may also be used.

4. **Partitioning the classroom into work areas** with four-foot-high movable dividers has helped "characterize" different parts of the room. Partitions are moved very seldom and minimize distractions for those children with useable vision. Walls and tables may be covered with colored paper with each work area a different color. Furnishings may also help characterize each area, such as the ADL (Activities of Daily Living) area, Motor area, Language area, etc.

IMPLEMENTING PROGRAMS for the MULTIPLY HANDICAPPED VISUALLY HANDICAPPED

Typical Implementations of the Five-Part Orientation and Mobility Program.

Case 1: ANNA MARIE

Anna Marie is a 16-year-old, nonverbal female with moderate CP involvement. She has good travel vision, precluding the use of a cane, but poor posture and orientation skills. Mentally she functions on a moderate to severe level. The orientation and mobility program was designed as follows:

1. GROSS MOTOR:

Arrangements were made for Anna Marie to be seen by the physical therapist. Therapeutic exercises were requested which Anna Marie could be trained to do without assistance—our objective being to arrange a period of the day for her to self-initiate her exercises. A series of three exercises were prescribed and demonstrated by the physical therapist. The exercises were included in the gross motor exercises which consisted of an obstacle course, a step ladder laid on the floor through which she steps, and rapid "get ups and downs" from the floor. This along with stair climbing activity, field trips, and physical education class provided a broad spectrum of motor discharge and expression for Anna Marie.

2. SENSORY:

Due to the high degree of remaining vision, emphasis is given to developing use of this vision. Anna Marie must be frequently encouraged and reinforced to use this vision. Exercises include the following:

A. Using vision to look for landmarks.
B. Using vision to look for and identify objects and places.
C. Using vision in games.
D Identifying objects by color.
E. Insisting frequently that she use her eyes.

Tactual development is accomplished by the identification and discrimination of textures by hand and foot.

Auditory development is through the use of noise makers such as musical instruments and specific mobility lessons to develop an awareness, localization, discrimination, and use of sound. A lesson incorporating the sounds, sights, and smells around the lunchroom is highly motivating for Anna Marie.

3. CONCEPTUAL:

Anna Marie is developing the laterality concept of her body and can identify almost all of her simple and complex body parts. Body image tests and exercises are given to develop Anna Marie's awareness of and use of laterality body planes and spatial relations. She is making gradual progress.

Nominative concepts are included such as the names of common objects, places, actions. Other concepts are also stressed in situational contexts.

4. SIGHTED GUIDE MOBILITY:

Due to her functional vision, the sighted guide technique is not necessary. However, her ability to make simple movements and actions requested of her is emphasized in her program. A representative list is given in the appendix.

5. INDEPENDENT MOBILITY:

Learning the names of indoor objects, places, and areas as well as errand, sequence, and route planning type lessons have been of special concern because of her vocational potential. Some examples of lesson types are:

1. Learning to distinguish different desks for later pick up and delivery of items. This is done by having Anna Marie go and touch each desk as it is named.
2. Carry objects, mail, etc., to office.
3. Learning different names for the same object, such as: lunchroom, dining room; clinic, infirmary; restroom, bathroom, etc.
4. Learning to find one objective (with instructor accompanying). Variations:
   a. Return by different route.
   b. Name objects along way going and returning.
   c. Go to objective using a new route.
   d. Start from slightly different place.
5. Learning to find one objective and wait for instructor to arrive.
6. Learning to find one objective and return to starting point.
7. Learning to find two objectives in sequence with instructor accompanying.
8. Learning to find two objectives in sequence and wait for instructor to arrive at second objective.

9. Learning to find three objectives in sequence and wait for instructor at third objective.
10. Learning to plan route to and from two objectives.
11. Learning to plan route to and from three objectives.
12. Conducting tours of building.
13. Locating exits and windows adjacent to desired outdoor areas. Example: "Take me to the door (or window) near the garden."

TYPICAL DAILY IMPLEMENTATION

Lessons range from 30 to 45 minutes. Important activities can be repeated in this length of time as needed. For example, stair travel may be recycled three or more times in the same lesson. This sometimes necessitates rescheduling other activities. Activities other than those suggested may be used in each slot.

TIME	ACTIVITY
5 Min.	Practice walking up and down steps. Anna Marie has progressed to using one hand and alternating feet going up and down.
5-10 Min.	Exercises recommended by physical therapist—consisting of prone leg lefts on table, hip rotation exercise and walking on a rope laid on the floor in various patterns, obstacle course, step ladder.
5-8 Min.	Review of complex body parts—(thighs, skin, forehead, upper arm, etc.) practice aligning planes of body with objects, and review of right/left.
5 Min.	Route: Go to the office and mail this letter. Then go to the conference room and wait.
5 Min.	Nominative concepts — naming of common objects in the conference room, e.g., chair, table, bookcase, file cabinet, doorknob, carpet, light switch, wall outlet, chalkboard, ash tray, etc. Anna Marie touches the objects as they are named.
5 Min.	Route: Take this book back to the library and go back to the mobility office.
5 Min.	Practice right/left discrimination and grasp by opening door with selected hand. Anna Marie's grasp and ability to manipulate doors and doorknobs has improved considerably since beginning.

By segmenting the lesson in this fashion, the schedule can be varied and sections repeated during the same lesson. Anna Marie might spend two or three segments on stairway travel—each interspersed with another activity. This avoids problems with boredom, tiredness, and attention span. Segments may run as much as 15 to 20 minutes, depending on the person. Usually, however, they are 4 to 10 minutes each.

Case 2: RONNIE JOE

Ronnie Joe is a 10-year-old, nonverbal male of very small stature who was born blind. He exhibits a moderate curvature of the spine and weak, toneless muscles. There is severe mental, motor and social delay. Ronnie Joe spends most of the day sitting and very seldom attempts to go any place else. He will, however, walk when an adult holds his hand and can stand alone briefly. He depends on adults to carry him for his transportation needs. No reason has been given for Ronnie Joe's small size or lack of vision.

His mobility program was designed as follows:

1. GROSS MOTOR:

In consultation with the physical therapist and physical educator, a series of activities were implemented to develop Ronnie Joe's ability to move his limbs and body, thus adding valuable skills to those he was already able to do. Lessons are initiated assisting Ronnie Joe to crawl through a barrel, roll on a mat, step over objects, and walk up steps. He then walks for 3 to 4 minutes holding the instructor's hand.

2. SENSORY:

Ronnie Joe has small underdeveloped hands indicating they are used very little. His hearing, although untestable, appears normal, and he is able to respond to basic requests such as to stand up, sit, and take or give an object when asked. He is able to reach and touch a sound producing toy when shaken near him.

Basic strategy has been to encourage Ronnie Joe tactfully to explore environmental textures, such as carpet, wall, door (wood), glass, and to stimulate him to look beyond his reach for sound-producing toys. He is encouraged to manipulate sound producing toys by placing them in his hands and demonstrating. He is assisted in turning toward adults who are talking to him. Another activity involves assisting him in finding all the toys which are placed randomly on his work table, thus helping him learn the rewards of exploring.

3. CONCEPTUAL:

Ronnie Joe can touch his head, arm, leg, and mouth, but knows none of the more complex body parts, body planes, or directions. Work consists of teaching additional body parts and developing ability to follow directions (see "Following Directions Checklist" appended) preparatory to more advanced concept training. All objects are named when working with Ronnie Joe, developing his receptive vocabulary, and again, laying a foundation for further work.

4. SIGHTED GUIDE MOBILITY:

Due to limited physical ability and frequent falls, Ronnie Joe's hand is held during walks. The immediate objective is to develop muscles used in walking. Conventional sighted guide procedure can be introduced at a later date. Steps are a particularly important environmental obstacle, and every lesson with every child includes stairway travel. As stated before, functioning with another person is also being developed through use of the following directions checklist.

5. INDEPENDENT MOBILITY:

No independent travel is now possible. Objectives now center around developing walking ability and endurance with an instructor holding his hand. A short stick and then a short length of rope will be used next with Ronnie Joe holding one end and the instructor the other. Ultimately, Ronnie Joe should progress to independent walking. Lessons now revolve around certain short-range, in-classroom objectives such as the bathroom, work table, and door, so that these places and routes will be familiar as more independence is achieved.

TYPICAL DAILY IMPLEMENTATION

Lessons with Ronnie Joe usually range from 20 to 30 minutes. Due to the basic nature of the activities, students, aides, and volunteers can be shown how to conduct certain phases of the lesson.

TIME	ACTIVITY
5 Min.	Crawl through tunnel, step over board, three rolls on mat each direction, walk up and down steps 4 times.
3-4 Min.	Walk with hand held by instructor.
3-4 Min.	Investigate textures and objects while walking—such as carpet, tile, concrete, glass, wood, metal—and objects such as potted plants, water fountain, radiator, gym equipment. Name all objects sensory stimuli.
3-4 Min.	Practice identification of body parts: hand, foot, knee, back, front.
3-4 Min.	Practice following directions (also done concurrently with other activities) hold my hand, step up, step down, roll over, get on your knees, push (the door), pull (the door).
3-4 Min.	Find toys placed randomly on table.
3-4 Min.	Move favorite sound toy just out of reach. Assist in helping find it.

APPENDIX

SUGGESTIONS FOR DEVELOPING MOBILITY in PROFOUNDLY IMPAIRED CHILDREN WITH VISUAL IMPAIRMENT

SPRITES

Program Elements for Effective Intervention

Self-Help— Let or help the child do as much for himself* as possible. Concentrate first on eating skills if he is motivated by food. If you are feeding him, occasionally make him turn his head or reach for the next bite. Work for and insist on head and arm movement.

Positioning— If the child is learning to crawl, see that he is placed face downward on a mat, crawligator, or roll, then rewarded for any movement. Help him learn to roll over. A child cannot learn to crawl if he spends all his time on his back. Put child on different surfaces in different parts of room on a regular schedule, such as 9-10 a.m. on a rug, 10-11 a.m. on mat, 1-1:30 p.m. on tile, 1:30-2 p.m. on bean bag chair, etc. Always place children so they face the center of room or areas of major activity to encourage head lifting and head control as well as use of residual vision. Stick-on mirrors placed on wall even with mat, rug, and tile can encourage interest and movement.

Rhythm— Sing, talk, and play records while bouncing, stroking, and rocking the child to rhythm. Stroke, pat, and scratch (gently) various parts of body. Several periods of this each day will help the child who rejects people and stimulation.

Imitation— (And repetition) — Imitate the child's sounds, motion, and facial expressions, if he has sufficient vision. If the child claps his hands, bangs his feet, cries, etc., then imitate this. Then try to have him imitate you in another simple activity that is within his repertoire. These children require many repetitions to learn a skill, so give them plenty of opportunities for repetition of skills they are learning.

Touching— Touch, pat, scratch (gently), massage, and hold the child at every opportunity.

Exercises— Move the child's limbs through some exercises if he is not capable. Check medical records and doctor first, as some children cannot tolerate certain exercises. Bend all joints several times, move limbs throughout their range of motion. Massage hands and feet.

Sensory—Stimulation Singing & Talking Sing and talk to the child as you work or play with him. Call his name often. Use a program of lavish sensory stimulation. Expose the child to different textures, tastes, sounds, and sensations. Help him use both his hands to explore, pat, stroke, fondle, and use objects. Above all, give him your own warmth, touching, holding, and closeness. If he is not stimulated by human beings, he is not very likely to develop much interest in the rest of the world.

FOLLOWING DIRECTIONS CHECKLIST

Stand up
Sit down
Open mouth
Give me your hand
Take this
Give it to me
Come here
Stop
Turn around
Hold your arm up

Back up
Wait
Open the door
Turn off water
Turn on water
Flush toilet
Turn off light
Turn on light
Don't
No

Bring me the _____
Put this on table
Wipe your nose
Lift your feet
Sit up
Scoot up
Scoot back
Lie Down
Roll over
Get up

Turn over
Stay here
Pick it up
Put it (that) down
Go
Hold this _____
Take off your _____
Put on your _____

*Throughout the Appendix, the masculine pronoun is used to refer to the student. It is used for the sake of brevity and clarity and should be understood as referring to students of both sexes.

TO PARENTS OF YOUNG BLIND CHILDREN: WHAT YOU CAN DO TO DEVELOP THEIR MOBILITY

To understand oneself and one's environment well enough to travel safely and efficiently requires a vast amount of information and coordination as well as the ability to absorb, discriminate, and utilize sensory information. The sooner these skills are learned, the better. There may be much difficulty in later years overcoming those missed experiences and skills. The resulting delay of the child's mobility—hampering his awareness of the range and variety of experiences in the world—often retards the rate at which he progresses upward through programs in which he is enrolled.

Mobility is one of the crucial areas that affects every aspect of the child's life—at home, school, on the playground. Certainly as the child grows older we expect and anticipate more independence: going to and from school or a job, visiting friends, shopping—all these are part of living in this world. Without the ability to move from place to place and do things with our hands or minds—we are prisoners. Mobility, to whatever degree possible with the individual, enhances that life; 75% of the muscles in the body are for movement of it. So physical movement through the environment for the child, besides the implications for his well-being in his developing world, helps in the maintenance of his body, health, and stamina.

The time to begin helping the child is now. These remarks are intended as a guide for the parent—to help the parent look objectively at the important elements of mobility in the developing child and to suggest general principles by which to be guided.

How well your child relates to the world, to a large extent, will determine later success in life, and the first successful relationship that must be formed is with the mother—or the mothering person. This is imperative, for children who are not successful in this seldom achieve success in dealing with other people and things. They seem to withdraw—to shrink from the environment and enclose themselves in the world of the mind. There is evidence to indicate that children are more likely to explore and investigate the surroundings if mother is present than if she is not. This brings up one problem of the mother of a blind infant. How does the child know when mother is around? Obviously it is very simple for a sighted infant to look across the room and see that the door was opened by mother. Here are some general ways that mother can help her child know where she is and begin to feel more secure about the environment.

1. *Avoid leaving your child in a room alone.* The child should be where the major activities of the home are centered.

2. *Handle and hold your child as much as possible.* Do this in spite of crying, as the child absolutely must learn very early in life to enjoy being held by mother. If your child freezes rather than smiles when you approach, this is because of intensely listening to your footsteps. For the first few months of life, the crucial environment is that which is provided by mother's presence.

3. *Talk to your child.* This is one way your child knows who you are and where you are. Other ways are by your touch, smell, and taste. Your child needs to know when you are there and how far away. So talk. Use your normal voice, tone, and volume. Talk about the situations at hand, something that is about to happen, and remember that you are really communicating to the infant with your tone of voice, rather than with the meaning of your words. So be aware of your tone and all the ways you use your voice to convey meaning.

There is evidence to indicate that even newborn infants prefer the sound of the human voice to any other sound. This may be why many blind infants and children have such interest in radio and TV. From these objects flows a steady stream of human voices—not to mention music and other interesting sounds. The harm that might possibly result from leaving a child unattended for long periods with a radio, record player, or TV is open to contention. However, it may well promote the mimicry and meaningless sounds that we hear in some blind children. It is certainly advisable to keep these types of activities to an absolute minimum by keeping the child in the room where the real people and voices are, and by talking to and prompting responses from the child. This will help him make sense of the world by using the auditory sense for learning about and coping with the world—rather than as a pleasant and aimless diversion.

4. *Help your child use all his senses to interpret the world.* For some reason, certain children will begin to use one sense to the virtual exclusion of others. Often this sense is hearing, but it can be taste or others. This child can be seen examining objects by way of the varying sounds they make when drummed on or hit with the fingers. Or, taste and smell may be of primary interest. The shape, weight, texture, and smell of the objects seem to be of little importance in these situations. By being aware of various properties of objects and seizing opportunities to demonstrate this, you can help your child develop a fuller appreciation of the world that is not distorted by the exclusive attention to a single sensory stimulus.

5. *Be alert for repetitive habits.* Some children like to bounce, jump, rock, flicker objects in front of the eyes, push fingers against eyes, and so on. The time to stop this is now. Occupy his hands and mind with an activity. If the mannerism persists, use gentle and frequent reminders. Do not punish.

6. *Treat your child as normally as possible.* This may be hard to do, but it helps to think of your child as someone who happens not to be able to see, rather than a blind child. Handle tantrums and crying spells just as you ordinarily would. Expect achievement of walking and talking at a slower rate than sighted agemates. Six to twelve months delay is about average.

7. *Help your child learn to use his hands.* The hands of some blind children are small, soft, and weak. This comes from too little exploring of the world, and often these children are deficient in many skill areas. We accomplish things with our hands. Much accomplishment in school and job will be keyed to how well your child uses his hands and what he has learned so far by using them. The head and hands are the double keystones of achievement that must be developed.

8. *Encourage movement.* A child cannot learn very much about the world from a crib or playpen. Take your child to different rooms. It may be confusing to him at first, but everything will be all right if you are there. Let your child crawl around and investigate while you work. If a finger gets mashed, or there is a bruise, react the way you would if any child that age got hurt: Do a little bit of pampering. Of course, stairways should be blocked and dangerous chemicals locked away. These things are a part of growing up. Your child absolutely must explore and be encouraged to do so.

9. *Provide varied experiences.* The kind of experiences any child that age might get. The sky's the limit:

   a. Playing in the grass in the sun.
   b. Playing in the grass under a tree.
   c. Visiting different people and places.
   d. Bouncing on a bed.
   e. Swinging.
   f. Going for a ride—wind blowing in the face.
   g. Different flavors of foods, fruit, candy, ice cream.
   h. Sand box.
   i. Playing in or with water.
   j. Going shopping with mother.
   k. Amusement park rides.
   l. Being rocked to sleep in mother's arms after a hard day's playing.

   You can think of many others. What kind of activities would you be doing with your child if he/she were sighted? Do them.

10. *Use names for everything.* Including actions. Name foods, clothing, toys, places, household objects, movements (such as push, turn, walk, hold this, up, down), and positions (such as in front of, beside, on, etc.). By using labels you will begin the journey of understanding this great big world of ours.

SUGGESTED GROSS MOTOR ACTIVITIES

GROUND RULES:

A. Use music wherever possible. Emphasize rhythms.

B. Say the action they are doing as they do it.

C. Encourage use of both sides of body where possible, rather than just one side.

D. Select and/or modify activities to stimulate senses of hearing, touch, vision, and of movement.

E. Look for opportunities to help children develop concepts such as over, under, fast, slow, loud, soft, forward, backward.

F. Make it fun!

G. Be enthusiastic!

1. *Stretching Exercise*
   Reach way up, reach way down, out to sides, in front, behind you, etc. Good warm-up exercise and reinforces body image.

2. *Get Ups and Downs*
   Have students as a group get up from floor and back down again as quickly as you call it, "UP," "DOWN," etc. Go slowly at first. Variation can be getting up from face up or down position and returning to same.

3. *Duck Walk, or Contest*
   Students duck walk to an objective and return.

4. *Spider Walk (Hands and feet only. touching floor.)*
   Try this face up and face down—same as above.

5. *Hopping (with feet together)*
   Bunny Rabbit race to objective and return or just as an exercise.

6. *Bouncing (on inner tube or trampoline)*
   Be safe. Hold both of student's hands in the beginning and as they progress go to one hand. Repeat "up," "down," and other words to reinforce concepts.

7. *Jumping*
   Off coke crate first, then progressively to higher objects, ending with chair. Again, emphasize concepts, "Step up," "Jump down," "Turn around."

8. *Crawling*
   Use as a race or exercise. Very good for helping strengthen upper body.

9. *Ball Pass*
   Stand students in very close circle. Have them pass a ball around. Helps develop basic recognition of and cooperation with others.

10. *Kicking*
    Helps students learn to kick a ball. Those with balance problems can hold on to a rail or other support.

11. *Rolling*
    Inside and rolling down slope outside. Check for sticks, projections, and glass first.

12. *Hanging*
    Place a chinning bar in doorway and see (or time) how long.

13. *Sit-Ups*
    Count number of sit-ups. Assist as much as needed.

14. *Balancing*
    Practice forward, backward, and sideways on balance beam.

15. *Twisting*
Stand with arms outstretched and twist upper body from side to side.

16. *Catching*
Have one advanced student or one with some sight, or staff person play catch with less able student. May also place two students on floor facing each other, legs outstretched and feet almost touching. Roll ball back and forth.

17. *Running*
Have races, relays, etc., inside or out. Best overall exercise there is. Do not expect all students to know how to run. Start out fast walking, then progress to jogging, then running.

18. *Jump-Ups*
Get down real low (squat). Then jump! See how high you can jump straight up!

19. *Tug of War*
Get a rope and go to it. Reinforce, "Pull!"

20. *Obstacle course*
Construct an obstacle course of tables, chairs, and other objects. Guide students through one way then the other.

INSTRUCTIONAL GUIDELINES

Any learning experience for a severely handicapped, multi-impaired blind child can be made a good lesson by following some simple rules. These ideas work for parents, aides, and attendants, nurses, food servers—anyone who is asked to teach a child to do something or be something new or different.

The rules help you to choose what to teach, how to begin, what to say, and what to do, both during and after the lesson.

HOW TO CHOOSE WHAT TO TEACH

1. *Break skills down into small steps and teach them in order.* If a step cannot be learned, make sure all earlier steps have been learned and then break the difficult steps down into even smaller steps.

2. *Some skills, especially dressing skills, are best taught in reverse order.* Break the skill into small steps and teach the last step first. By teaching this way the child feels good about himself because he has a chance to finish the task each time.

3. *Perhaps the best guideline of all is to have the child learn by doing* since most of what we learn is learned through experience.

4. *It almost always takes a long time to teach skills to the multiply handicapped.* Choose a skill or part of a skill the child can learn in the time you have to teach it.

5. *All lessons, especially beginning lessons, should be designed so that the child can succeed.* The child will enjoy the lesson and learn much faster if the skill being taught is within his abilities and not too difficult.

HOW TO BEGIN

1. *Use the skills which the child already knows* as a springboard for new learning: pair something new with something already known.

2. *Use the real world and real objects for teaching.* Provide the child with many normal experiences with real objects and situations.

3. *Teach skills the same way every time.* The child will learn much more quickly if you are consistent in the way you do things.

4. *Your position when teaching is important.* Always begin teaching eating and dressing skills from behind the child.

5. *Some children may misbehave simply to get attention.* Ignore bad behavior and give attention for good behavior to correct this situation.

WHAT TO SAY AND HOW TO SAY IT

1. *Use simple language.* Always use the same names for things. The child may know where the lunchroom is but not the dining hall; the nurse's station but not the infirmary or clinic; the bathroom but not the restroom, toilet, or men's room. Be aware of the words you are using when you are talking with the child.

2. *Always talk to the child when teaching a skill.* Name all of the objects which are present and use words to describe the action that is taking place.

3. *When possible, have the child repeat directions to you.* This will help you make sure the child understands what you want.

4. *A child needs to know who he is:* use his name often.

5. *Children need to know right away whether they did a good job.* They like to hear when they have. They need to hear gently when they have not.

WHAT TO DO

1. *Blind children learn best when they touch and feel the objects* they are learning about. Make sure that you give the child many chances to explore things with his hands.

2. *Children learn many things by imitation.* Make sure you show the child the right way to do something before you ask him to do it alone. Guide him physically through the right steps.

3. *Give the child plenty of time.* Even easy tasks take longer.

4. *Touch, hold, and play with your child* because the warmth and love of an adult is very important.

5. *Teach skills in a relaxed, fun way* so that you and the child will look forward to the next lesson.

6. *Reward the child* with praise, attention, and hugs whenever he does a good job.

7. *Practice makes perfect.* Have the child practice and review skills even after he has learned them until he can perform the skills correctly each time.

8. *Reinforce actions, skills, and behavior that will be useful* to the child later on in life. Do not reinforce repetitive or childlike mannerisms.

9. *The best time to teach is now.* That is, use situations as they naturally occur for teaching.

10. *Give the child choices where possible.* Let him make decisions. This fosters maturity.

11. *Use music, rhythm, and singing wherever you can.* Much of life is rhythm, and music can help us teach it.

GAMES and ACTIVITIES FOR DEVELOPING ORIENTATION & MOBILITY SKILLS in SEVERELY & PROFOUNDLY HANDICAPPED CHILDREN WITH VISUAL IMPAIRMENT

1. **Obstacle Course**—This is a valuable exercise and an easy one to arrange. Use it as one of the basic elements of the motor program. For example, the first exercise on Monday, Wednesday, Friday could be an obstacle course. Arrange chairs, mats, balance beams, tires, ladders, tables, and other gym and classroom furniture into an obstacle course where the child must use various body movements: crawling, rolling, stepping, walking, etc., to go around, over, through, and under objects in the obstacle course. For example, an obstacle course might consist of:

   (1). a tunnel made of an empty oil drum, propped up mats, cardboard, or a blanket
   (2). a ladder laid down at the end of the tunnel
   (3). a board or mat laid across the seats of two chairs
   (4.) mat or area 6' x 8' enough to do three rolls
   (5). a balance beam
   (6). a chair

   The child goes through the course by (1) crawling through the tunnel, (2) standing up and walking through the ladder, (3) lying on his back and wiggling underneath the board, (4) doing three rolls, crawling or tumbles on the mat, (5) walking the balance beam, then (6) finding and sitting in the chair. Help the child go through it several times starting at one end and then the other. Arrange the obstacles differently each day, use new ones. Innovate.

2. **Push and Pull**—Find an object in the room, gym, or playground that will roll or slide easily. Instruct and assist the child to "push" or "pull." May be done with more than one child at a time. Praise child when object reaches as far as it will go. This exercise helps the child develop coordination and the understanding of the concepts "push" and "pull." These are necessary to manipulate doors in the environment.

3. **Simon Says (or Simone Says)**—This game can be played in many ways:

   1. Line the children up next to a wall, start off by having children touch and identify wall. Then have them place various body planes against the wall—front, back, side, other side (or right and left if child can make this discrimination). May also be done on floor. This exercise helps the child learn his body planes and introduces the two sides of his body, preparatory to learning right and left.

   2. Same as above but have child touch different body parts to wall—head, hand, leg, arm, stomach, hip, knee, foot, ear, etc. Pick a group of three or four easy parts and go over those several times and pick another group. This exercise develops the child's knowledge of himself, which is important for mobility.

   3. Do either of the above two exercises with a piece of furniture such as a table or desk. This will help the child begin to relate his position with that of objects around him.

   4. Have children follow the wall with various planes, then parts in contact. Example: Simon says follow the wall with your back, follow the wall with your side, follow the wall with your other side. Follow the wall with your arm, follow with your hip, follow with your hand. This exercise will reinforce the parts he has already learned and help him learn the trailing technique with his hand, which is valuable mobility technique.

4. **Stairs and Steps**—All children need to know how to manage on steps and stairs, and daily practice will help. A small flight of three, four, or five steps with a rail is ideal. Be careful and stay close to and below the child on the steps to prevent falls. This exercise will benefit the child's muscles, cardio-pulmonary system, and make him more confident in using stairs wherever he goes.

5. **Rhythm Exercises**—Assist the child to learn clapping hands, stomping feet, and marching to music rhythm on cassette or record. Do mat exercises such as sit-up, etc., to rhythm. Simple musical instruments. All of life is a rhythm, so help the child master rhythm. These exercises are important because cane travel uses a cer-

tain kind of rhythm that is easier to learn if the child is experienced in rhythm.

6. **Get Ups and Downs**—Have students as a group get up from floor and back down again as quickly as you call, "Up," "Down," etc. This builds and reinforces the concepts of "up" and "down." Go slowly at first. Variation can be Simon Says or starting from face-up or face-down position and returning to same. This exercise develops the coordination, movement, and strength of the child's whole body which will help him in his mobility.

7. **Stretching Exercise**—This is a good warm-up exercise and reinforces the body planes. Line the children up along a wall. Say, "Reach way up, reach way down. Reach way in front, reach way behind, reach out to the side" (right and left may be used). Besides helping body image, this exercise also reinforces the concepts of up and down, which helps the child to understand stairs, ramps, and directions on mobility lessons.

8. **Body Movement**—In this exercise, the child explores the different movements his body is capable of. This is done on a mat.

    1. Roll—Do rolls on mat.
    2. Jump—Start way low.
    3. Crawl—Crawl across the mat.
    4. Creep—Creep across the mat.
    5. Scoot—Scoot forward, backward, to the side.
    6. Knee Walk—Walk across mat and return.
    7. Tumble—Tumble on mat.
    8. Walk—Forward, backward, step to the side.
    9. Hop—Forward.
    10. Running—Run forward, to the teacher.

9. **The Rope**—A rope can be used in many different ways:

    1. A tug-o-war develops strength and coordination as well as the concepts of "hold on," "pull," "stop!" and "let go"—also useful concepts in mobility.

    2. A "train" may be made of children holding the rope. Place a child with good mobility or some sight at the front. This may be done to music or choo-choo sounds from the children. This exercise develops the child's ability to hold on to the rope and respond appropriately to movements ahead of him—both of which develop his use of sighted guide skills.

    3. A path may be made by placing the rope on the floor in different shapes. The child then follows the path with one or both feet (depending on size of rope). This may be used as part of an obstacle course. This exercise develops: (1) the child's awareness of sensations underfoot; (2) his ability to perceive directions and turns; and (3) balance and coordination.

OUTLINE
of
ORIENTATION & MOBILITY WORKSHOP

NOTES FOR THE INSTRUCTOR

I. ***What is Orientation and Mobility? Discuss generally.***

A. Experience of others with blind

B. Beliefs, misconceptions about blind
    1. Hearing and touch
    2. Degree of blindness—8 or 9 or 10 can see
    3. TV shows—popular stereotypes

C. Five ways of getting around
    1. Cane
    2. Dog
    3. ETA
    4. Sighted guide
    5. Independently with no aid

II. ***Why is it important?***

A. Health

B. To achieve (to do)

C. Confidence

III. ***How is it done?***

A. Cane travel
    1. Proceeds from pre-cane to business
    2. One-to-one relationship
    3. 80-200 hours of instruction depending on individual

B. Dog guide
    1. Requires four weeks of training at school
    2. 1% of blind use dogs
    3. Companionship—and an excellent means of travel

C. ETA's
    1. Expensive
    2. Largely still in experimental stage
    3. Better travelers use them best

D. Independently
    1. We become accustomed to familiar environments
    2. Most blind people get around much of the day this way

E. Sighted guide
    1. Offers a safe effective method of travel
    2. A necessary technique regardless of aid used
    3. Beginning of a foundation for other skills

IV. How do you know where you are and where you are going?

A. All information comes to body through senses
   1. Sight
   2. Smell
   3. Taste
   4. Hearing
   5. Touch

B. These clues are combined to provide information about the immediate environment.

C. Knowledge about environment and about concepts enhances sensory information.

D. When traveling there is constant assimilation and use of information about environment.

E. Goes by idea or mental map of environment.

V. What are the basic orientation and mobility skills?

The sighted guide

A. Demonstrate
   1. Position (body)
   2. Grip
   3. Position of client's arm

B. Discuss
   1. Significance of grip—client nervous, etc.
   2. Unobtrusiveness
   3. Brush arm to initiate contact

C. Demonstrate
   1. How to go through narrow spaces (open doorways)
   2. Arm straight
   3. Reach forward to check position
   4. Guide should give clear signals

D. Practice
   1. Allow students to pair off and share equal time functioning as sighted guide and a blind person
   2. Students stay on level ground—no steps or stairs!
   3. No closed doorways
   4. Check student for proper technique
   5. Students report back in 10 minutes

E. Discuss
   1. Feelings while traveling blindfolded
   2. Awareness of sensory information

F. Demonstrate
   1. Method for seating
      a. from front
      b. from rear
      c. at a table
   2. Examining objects
      a. use both hands
      b. pick key area to start and end
      c. be aware of hazards and souces of injury
      d. use student's guide hand
   3. Leaving a blind person

G. Practice
   1. Practice sighted, narrow space, seating, and examining objects
   2. Check technique
   3. Report back in 10 minutes
   4. No steps!
   5. No closed doorways

H. Demonstrate
   1. Procedure for negotiating closed doorways
   2. Low functioning children may be able to pick up side door is opening on
   3. Pause and announce type of door opening, e.g., (away to the left) or that a door will be entered

I. Discuss
   1. Student's active part in sighted guide process
   2. Point out and discussing sensory information

J. Practice
   1. Closed doorways and previously learned techniques
   2. Report back in 10 minutes
   3. No steps!

K. Demonstrate
   1. Procedure for ascending and descending stairs
   2. Go slowly
   3. May need to let student hold rail initially
   4. Alternate feet
   5. Pause and announce whether steps are up or down
   6. Weight on heels going down and on toes going up

L. Practice
   1. Stairways and previously learned skills
   2. Report back in 10 minutes

M. Demonstrate procedure for room familiarization
   1. Orientation: size, shape, purpose, etc.
   2. Perimeter
   3. Object to door
   4. Object to object

N. Practice all previously learned skills

O. Discuss questions and comments from participants

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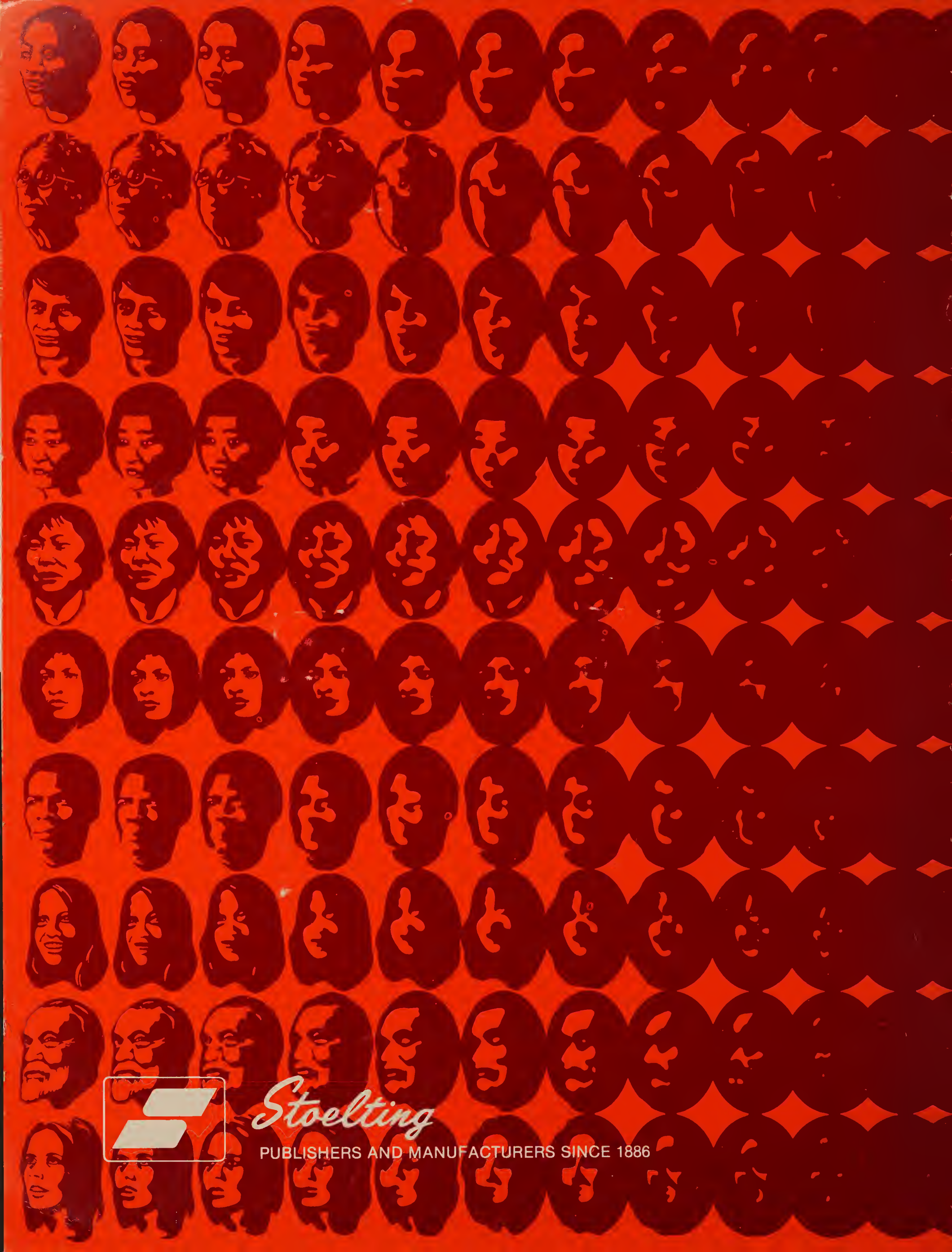
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